This book is an introduction to a comprehensive analysis of recent advances and clinical research in noninvasive mechanical ventilation (NIV) in Pulmonary, Critical Care, and Sleep Medicine. The objective of the book is to increase the knowledge and understanding of the reader in the best clinical practice in three main sections. A selected international group of experts in the field of noninvasive ventilation formed a panel to provide an update on the recent literature in the application and efficient utilization of NIV in Pulmonary, Critical Care, and Sleep Medicine. Each particular section will discuss the application of NIV in different disease processes. The authors summarized the main results of the recent trials, clinical and technological advances, expert opinions, and practical guidelines. Chapters, summarized by expert committee, provide a “deep and exhaustive critical analysis and summary” of the recent advances in the field of NIV, presented as key points and recommendations for the best clinical practice from articles published in the last decade. The content of the book will serve as a resource and a tool to the practicing physicians toward NIV. Main objective is to increase their proficiency in management of different pathophysiological aspects of the respiratory system. In this line, the book offers to the readers, who are seeking the latest recommendations, the future research directions in noninvasive mechanical ventilation. Table of contents describe and analyze, the items trend setters in noninvasive ventilation, organized in three main sections, “pulmonary”, “critical care” and “sleep medicine”, using the primary keyword related with term “noninvasive mechanical ventilation” as search term associated with “secondary keywords” studies from a period of 2018 to 2019. This searching methodology and analysis define this unique book to the approach in noninvasive mechanical ventilation for best clinical practice, research, clinical study designs and critical analysis, how noninvasive ventilation is current and trending. Based on this form of conception of book updated, editors and authors consider that this book opens a new and original vision for adequate knowledge and deep updated based on key publications in the period under review, very useful for clinical practice, studies designs and potential new trends in the use of...
noninvasive ventilation. As such, it is a unique update book resource in noninvasive ventilation in pulmonary, critical care and sleep medicine that may influence current clinical practice and future studies. With ultimate goal is better care and outcome for our patients.

A new, case-oriented and practical guide to one of the core techniques in respiratory medicine and critical care. Concise, practical reference designed for use in the critical care setting Case-oriented content is organised according to commonly encountered clinical scenarios Flow charts and algorithms delineate appropriate treatment protocols

This book uses real-world clinical case analyses of hot topics to provide insights into noninvasive mechanical ventilation (NIV). Written by leading international teachers and experts, it features a selection of “major controversial topics in clinical practice” and demonstrates how these cases can be used to teach about NIV. It then presents a discussion of the topics in various scenarios (anesthesiology, critical care, emergency and pneumology). The chapters allow readers to develop a case-by-case understanding of NIV in acute and chronic respiratory disorders, and perioperative and in intensive care patients, also thanks to Electronic Supplementary Materials. Lastly the authors summarize five key points / recommendations. This book is an attractive resource also for universities/ educational seminars/ national and international postgraduate courses and hot-topics sessions at national/international congresses.

This book is a practical handbook which will tell you everything you need to know about non-invasive ventilation, whether you are using BIPAP in an acute medical setting or running a home ventilation service for patients with chronic respiratory failure. Different modes of ventilation are explained clearly and simply, with the physiological background presented in manageable chunks. Chronic obstructive pulmonary disease, left ventricular failure, obesity, neuromuscular problems and chest wall deformities are covered in detail. There are separate chapters on weaning and setting up a home ventilation service. Throughout the book there are key points, practical tips and checklists, providing you with clear and concise information about the practicalities of NIV. With its easy-to-read style, clear guidance on learning objectives in each chapter, practical examples and case studies, this book is presented in digestible, goal-orientated sections, ideal for busy ward staff to ‘dip into’ to improve their skills and deepen their understanding.

This comprehensive resource brings together the most current theories, evidence and best practice parameters for the use of nocturnal non-invasive ventilation (nNIV). Chapters focus on the application of acute and chronic nNIV in patients with cardio-respiratory disorders over a range of major medical settings. Updates on past and recent research in this field are highlighted. Authored by leading clinicians and investigators, Nocturnal Non-Invasive Ventilation provides practical and cutting-edge knowledge to physicians, researchers and allied health professionals on the front lines of treating cardio-respiratory and sleep disorders.

This book describes the use of inspiratory and expiratory muscle aids to prevent the pulmonary complications of lung disease and conditions with muscle weakness. It also describes treatment and rehabilitation interventions specific for patients with these conditions. This book is unique in presenting the use of entirely noninvasive management alternatives to eliminate respiratory morbidity and mortality and avoid the need to resort to tracheostomy for the majority of patients with lung or neuromuscular disease. Cost effectiveness of and patient preference for noninvasive ventilation methods are discussed. Emphasis on quality-of-life issues Acute
care and home care settings are addressed. Illustrative case studies amplify the concepts presented. Comprehensively addresses total care of the patient who needs noninvasive ventilation. Best available book on the market for managing the patient with neuromuscular weakness.

Extensively updated and featuring a new editorial team, the 6th Edition of Assisted Ventilation of the Neonate, by Drs. Jay P. Goldsmith, Edward Karotkin, Gautham Suresh, and Martin Keszler, continues to be a must-have reference for the entire NICU. Still the only fully comprehensive guide in this fast-changing area, it provides expert guidance on contemporary management of neonatal respiratory diseases, with an emphasis on evidence-based pharmacologic and technologic advances to improve outcomes and quality of life in newborns. A new full-color design and chapter layout combine for quick and easy reference. Covers everything you need to know about respiratory management in neonates: general principles and concepts; assessment, diagnosis and monitoring methods; therapeutic respiratory interventions; adjunctive interventions; and special situations and outcomes. Covers basic concepts of pulmonary pathophysiology and gives practical guidance on providing neonatal respiratory support with a variety of techniques, so you can learn both basic and advanced methods in one volume. Offers more than 30 appendices that help you quickly find normal values, assessment charts, ICU flow charts, procedure steps and other useful, printable forms. Reflects the rapid evolution of approaches to respiratory care, including the shift to non-invasive support, as well as changes in oxygenation targets, high-flow nasal therapy, volume ventilation, and sophisticated microprocessor-controlled ventilators. Completely new information on many previously covered topics, including ethical and legal issues related to neonatal mechanical ventilation. Features 11 entirely new chapters, including Radiography, Lung Ultrasound and Other Imaging Modalities; Non-invasive Monitoring of Gas Exchange; Airway Evaluation: Bronchoscopy, Laryngoscopy, Tracheal Aspirates; Special Ventilation Techniques; Cardiovascular Therapy and PPHN; and Quality Improvement in Respiratory Care. Includes new opening summaries that highlight key information in each chapter.

Over the last two decades, the increasing use of noninvasive ventilation (NIV) has reduced the need for endotracheal ventilation, thus decreasing the rate of ventilation-induced complications. Thus, NIV has decreased both intubation rates and mortality rates in specific subsets of patients with acute respiratory failure (for example, patients with hypercapnia, cardiogenic pulmonary edema, immune deficiencies, or post-transplantation acute respiratory failure). Despite the increased use of NIV in clinical practice, there is still a need for more educational tools to improve clinicians' knowledge of the indications and contraindications for NIV, the factors that predict failure or success, and also what should be considered when starting NIV. This book has the dual function of being a "classical" text where the major findings in the literature are discussed and highlighted, as well as a practical manual on the tricks and pitfalls to consider in NIV application by both beginners and experts. For example, setting the ventilatory parameters; choosing the interfaces, circuits, and humidification systems; monitoring; and the "right" environment for the "right" patient will be discussed to help clinicians in their choices.

Noninvasive mechanical ventilation is an effective technique for the management of patients with acute or chronic respiratory failure. This comprehensive and up-to-date book explores all aspects of the subject. The opening sections are devoted to theory and equipment, with detailed attention to the use of full-face masks or helmets, the range of available ventilators, and patient-ventilator interactions. Clinical applications are then considered in depth in a series of chapters that address the use of noninvasive mechanical ventilation in chronic settings and in critical care, both within and outside of intensive care units. Due attention is also paid to weaning.
from conventional mechanical ventilation, potential complications, intraoperative applications, and staff training. The closing chapters examine uses of noninvasive mechanical ventilation in neonatal and pediatric care. This book, written by internationally recognized experts, will be an invaluable guide for both clinicians and researchers.

The view on treatment of patients with severe respiratory disorders in general, and of patients with severe chronic obstructive pulmonary disease in particular, has changed during the past decades. The former, often nihilistic, approach has changed into an attitude towards more active engagement in, and treatment of, severely ill patients. In this context, noninvasive ventilation (NIV) has been brought into focus as a valuable alternative treatment, both in acute respiratory failure and chronic respiratory diseases. The growing interest in NIV has been reflected in the European Respiratory Mon.

The ERS Practical Handbook of Noninvasive Ventilation provides a concise ‘why and how to’ guide to NIV from the basics of equipment and patient selection to discharge planning and community care. Editor Anita K. Simonds has brought together leading clinicians and researchers in the field to provide an easy-to-read guide to all aspects of NIV. Topics covered include: equipment, patient selection, adult and paediatric indications, airway clearance and physiotherapy, acute NIV monitoring, NIV in the ICU, long-term NIV, indications for tracheostomy ventilation, symptom palliation, discharge planning and community care, and setting up an NIV service.

Mechanical ventilation is a life-saving procedure that has been used for decades to treat patients with respiratory failure. In recent years there have been major advances in our understanding of how to ventilate patients, when to initiate and discontinue ventilation, and importantly, the side effects of mechanical ventilation. This book represents a state-of-the-art review by the leading experts in this field and covers a number of important topics including epidemiology, underlying physiological concepts, and approaches to monitoring. The pros and cons of various modes of ventilation are reviewed, as are novel forms of ventilation that may play a role in the future management of patients with respiratory failure. The importance of patient-ventilator synchrony and ventilator-induced lung injury are reviewed, with a focus on recent clinical trials and the challenges of implementing the results into clinical practice.

This book provides readers with a comprehensive and up-to-date guide to non-invasive mechanical ventilation in palliative medicine, focusing on why and when it may be necessary. Physicians will find a practical guide to this specific context, particularly focused on pulmonary function and physiology in the elderly, and on ventilatory management in surgery and chronic stable conditions. The book provides detailed information on the rationale for invasive and non-invasive ventilation, the different modes of ventilation, indications and contraindications, prognostic factors, and outcomes. It addresses in detail the role of postoperative mechanical ventilation following various forms of surgery, and discusses key aspects of withdrawal from ventilatory support. Attention is also devoted to the use of mechanical ventilation within and beyond the ICU. The concluding part of the book focuses on important topics such as ethics, legal issues, home mechanical ventilation, drug therapy, rehabilitation and end-of-life. Its multidisciplinary approach, bringing together contributions from international experts in different specialties, ensures that the book will be of interest to a broad range of health professionals involved in the management of older patients admitted to the ICU, including intensivists, anesthesiologists, and geriatricians.
Unique text laying out the principles and practicalities of mechanical ventilation aimed at any practitioner.

The thoroughly revised second edition of the Oxford Textbook of Critical Care is a comprehensive multi-disciplinary text covering all aspects of adult intensive care management. Uniquely the book takes a problem-orientated approach providing a reference source for clinical issues experienced every day in the intensive care unit. The text is organized into short topics allowing readers to rapidly access authoritative information on specific clinical problems. Each topic refers to basic physiological principles and provides up-to-date treatment advice supported by references to the most vital literature. Where international differences exist in clinical practice, authors cover alternative views. Key messages summarise each topic in order to aid quick review and decision making. Edited and written by an international group of recognized experts from many disciplines, the second edition of the Oxford Textbook of Critical Care provides an up-to-date reference that is relevant for intensive care units and emergency departments globally. This volume is the definitive text for all health care providers, including physicians, nurses, respiratory therapists, and other allied health professionals who take care of critically ill patients. This print edition of The Oxford Textbook of Critical Care comes with a year's access to the online version on Oxford Medicine Online. By activating your unique access code, you can read and annotate the full text online, follow links from the references to primary research materials, and view, enlarge and download all the figures and tables.

This issue of Sleep Medicine Clinics, guest-edited by Drs. Amen Sergew and Lisa F. Wolfe, focuses on Noninvasive Ventilation and Sleep Medicine. This issue is one of four selected each year by series Consulting Editor, Dr. Teofilo Lee-Chiong. Articles include: Obesity hypoventilation - Traditional vs Non Traditional Populations; Spinal cord injury; Peri-Operative Care and Medication Related Hypoventilation; Lifetime Care of Duchenne Muscular Dystrophy; Management of Chronic Respiratory Failure in COPD - High and Low Intensity Ventilation; Management of Rare Causes Pediatric Chronic Respiratory Failure; Noninvasive Ventilator Management of ALS - Bulbar vs non Bulbar; Parsonage Turner; Noninvasive Ventilator Devices and Modes; Tailoring the Sleep Lab for Chronic Respiratory Failure; Long-Term Follow Up of Noninvasive Ventilation: Downloads and Troubleshooting; Extubating to Noninvasive Ventilation – NIV from ICU to Home; and From Tracheostomy to Noninvasive Ventilation – NIV from Long Term Acute Care to Home.

This extensively updated textbook comprehensively reviews the latest developments in evidence-based critical care. Topics are covered in a case study format with an emphasis on the principles of diagnosis and therapy. Each topic is covered using a variety of case studies and features a case vignette, clinical question and an additional discussion section to clarify areas of particular importance. Topics including cytokine release syndrome, sympathomimetic overdose and palliative care in the intensive care unit have been extensively revised, while new sections focusing on neuromuscular disease and subarachnoid hemorrhages have been added. Evidence-Based Critical Care, 2nd edition is a critical resource for critical care practitioners, fellows, residents; allied health professionals and medical students who wish to expand their knowledge within critical care. The case study-based approach taken in the textbook makes this an ideal resource for those preparing for board examinations.

Simplify, simplify! Henry David Thoreau For writers of technical books, there can be no better piece of advice. Around the time of writing the first edition – about a decade ago – there were very few monographs on this subject: today, there are possibly no less than 20. Based on critical inputs, this edition stands thoroughly revamped. New chapters on ventilator waveforms, airway humidification, and aerosol therapy in the ICU now find a place. Novel software-based modes of ventilation have been included. Ventilator-associated
pneumonia has been separated into a new chapter. Many new diagrams and algorithms have been added. As in the previous edition, considerable energy has been spent in presenting the material in a reader-friendly, conversational style. And as before, the book remains firmly rooted in physiology. My thanks are due to Madhu Reddy, Director of Universities Press – formerly a professional associate and now a friend, P. Sudhir, my tireless Pulmonary Function Lab technician who found the time to type the bits and pieces of this manuscript in between patients, A. Sobha for superbly organizing my time, Grant Weston and Cate Rogers at Springer, London, Balasaraswathi Jayakumar at Spi, India for her tremendous support, and to Dr. C. Eshwar Prasad, who, for his words of advice, I should have thanked years ago. vii viii Preface to the Second Edition Above all, I thank my wife and daughters, for understanding.

This book provides a basic clinical guide to the principles and practice of artificial ventilation, both manual and mechanical. It covers the development of artificial ventilation through the ages and the essential anatomy and physiology behind it. While there are many detailed texts available on mechanical ventilation, they are usually aimed at the hospital specialist and cover the many complex modes of ventilation used in the hospital setting. This book covers the basics of airway and ventilation management for non-specialists working in pre-hospital and emergency medicine. It fulfills the need for a resource that explains simply and clearly basic respiratory physiology, the pathophysiology behind respiratory failure and the practical aspects of artificial ventilation. This book links the two areas of hospital and pre-hospital practice together to promote better understanding of artificial ventilation by medical, paramedical and nursing personnel working in different fields of medicine.

This updated and revised edition of the classic bedside pocket reference remains the gold standard in critical care medicine. The new edition maintains Dr. Marik’s trademark humor and engaging writing style, while adding numerous references.

Intensive Care Unit Manual is a practical, hands-on, how-to manual that covers the full spectrum of conditions encountered in the ICU, guiding you step-by-step from your initial approach to the patient through diagnosis and treatment. Compact, affordable, and comprehensive, the ICU Manual puts all the critical care information you need right at your fingertips! Stay at the forefront of critical care with a practice-oriented, relevant, and well-illustrated account of the pathophysiology of critical disease, presented in a highly readable format. Gain valuable insight into the recognition, evaluation, and management of critical conditions such as respiratory, hemodynamic, and infectious diseases; management of ICU patients with special clinical conditions; cardiovascular, hematologic, and neurological disorders; poisoning and overdoses; trauma and burns; and much more!

This book is a concise guide to mechanical ventilation for trainees in emergency medicine. Divided into two sections the first part provides an overview of respiration, the physical act of breathing, pulmonary gas exchange, and respiratory physiology. The second section provides in depth coverage of mechanical ventilation, discussing its use in the emergency room, modes of mechanical ventilation, ventilator complications, and the management of ventilated patients. This useful text is enhanced by clinical images and diagrams, and features a comprehensive bibliography for further reading. Key points Concise guide to mechanical ventilation in the emergency room for trainees Provides clear explanation of basics of breathing and pulmonary gas exchange In depth coverage of modes of mechanical ventilation, possible complications and management Highly illustrated with clinical images and diagrams

Carbon dioxide in the respired gases gives evidence of life processes and the adequacy of breathing. The amount and concentration of
the gas in the breath can be measured and monitored with instruments called capnographs, which are used whenever and wherever the breathing of a patient might be affected by disease or treatment. The book deals not only with the clinical application of these devices but also with the basic physiology of the generation and transport of carbon dioxide in the body. A technical section describes how the instruments work and a unique section tells the history of capnography. Over 40 contributors cover these aspects in the book, which has been edited by three experts in the field.

This book is an outstanding attempt to standardize bedside neonatal respiratory care by the most researched authentic experts in the world. This involves more than sixty authors from the United States, the United Kingdom, Canada, Australia, Spain, Italy, Germany, India, UAE, and China. The latest in the arena of neonatal ventilation which holds future promise has been incorporated in this book. The experts take you through a real-time progression of bedside ventilation practices, with the focus on pulmonary and neurological morbidity. The e-book has links to videos of critical chapters and lecture PPTs to give the intensivist a 360-degree understanding of the complexities of neonatal ventilation. First comprehensive bedside management book of a baby on assisted ventilation. Latest evidence-based practices on noninvasive ventilation with protocols. A bedside guide for neonatologists, fellows, residents, postgraduates, medical students, nurse practitioners, and respiratory therapists. Management of assisted ventilation including high-frequency ventilation and NAVA. Analysis and algorithmic approach to cardiac hemodynamics in respiratory distress. Protocolized approaches to critical respiratory diseases of the newborn. Ancillary services explained in detail like targeted ECHO, NIRS, and Graphics by experts. Videos and lecture presentations by experts on SLI, CPAP, SNIPPV, NAVA, ECHO, and Graphics.

Chronic Obstructive Pulmonary Disease Exacerbations covers the definition, diagnosis, epidemiology, mechanisms, and treatment associated with COPD exacerbations. This text also addresses imaging and how it plays a pivotal role in the diagnosis and study of exacerbations. Written by today's top experts, Chronic Obstructive Pulmonary Disease Exacerbations

This reference surveys current best practices in the prevention and management of ventilator-induced lung injury (VILI) and spans the many pathways and mechanisms of VILI including cell injury and repair, the modulation of alveolar-capillary barrier properties, and lung and systemic inflammatory consequences of injurious mechanical ventilation. Considering many emerging therapeutic options, this guide also reviews the wide array of clinical studies on lung protection strategies and approaches to ARDS patients at risk for VILI.

In this book, you'll learn multiple new aspects of respiratory management of the newborn. For example, ventilator management of infants with unusually severe bronchopulmonary dysplasia and infants with omphalocele is discussed, as well as positioning of endotracheal tube in extremely low birth weight infants, noninvasive respiratory support, utilization of a protocol-driven respiratory management, and more. This book includes a chapter on noninvasive respiratory function monitoring during chest compression, analyzing the efficacy and quality of chest compression and exhaled carbon dioxide. It also provides an overview on new trends in the management of fetal and transitioning lungs in infants delivered prematurely. Lastly, the book includes a chapter on neonatal encephalopathy treated with hypothermia along with mechanical ventilation. The interaction of cooling with respiration and the strategies to optimize oxygenation and ventilation in asphyxiated newborns are discussed.

The past few decades have seen major impacts of different pandemics and mass casualty events on health resource use in terms of...
rising healthcare costs and increased mortality. In this context, the development of acute respiratory failure in patients requires the use of mechanical ventilation, either invasive or noninvasive. Recently, noninvasive ventilation (NIV) has proved to be a valuable strategy to reduce mortality rates in patients. This is the first book to describe the clinical indications of NIV in patients who have been hospitalized with high-risk infections as well as in the prehospital management of mass casualty incidents, including chemical or biological disasters and pandemics. Compiled by internationally respected experts, it offers comprehensive coverage of all aspects of noninvasive mechanical ventilation in public health emergencies, such as equipment needs and guidelines for health organizations. Considering recent events (SARS, H1N1 influenza pandemic), the book concludes with a critical review of current studies and future prospects for the use of NIV, offering a valuable resource for all practitioners managing mass casualty incidents and disasters.

Non-invasive ventilation (NIV) involves the use of a mask to assist breathing for patients who can't breathe for themselves, providing an alternative to invasive ventilation, which involves the insertion of a tracheal tube into the throat of an unconscious patient. The procedure can be used for many problems involving breathing difficulties, such as lung disease and sleep apnea. This book provides a clear practical guide to medical practitioners on how to make use of NIV under various conditions - an approach that is easily applied. New additions to this second edition include chapters on cough-assist devices and non-invasive ventilation at home, along with an expansion of the chapters on long-term ventilation and physiotherapy. [Subject: Medicine]

The Second Edition of Asthma and COPD: Basic Mechanisms and Clinical Management continues to provide a unique and authoritative comparison of asthma and COPD. Written and edited by the world's leading experts, it continues to be a comprehensive review of the most recent understanding of the basic mechanisms of both conditions, specifically comparing their etiology, pathogenesis, and treatments. * Each chapter considers Asthma and COPD in side-by-side contrast and comparison – not in isolation - in the context of mechanism, triggers, assessments, therapies, and clinical management * Presents the latest and most comprehensive understandings of the mechanisms of inflammation in both Asthma and COPD * Most extensive reference to primary literature on both Asthma and COPD in one source. * Easy-to-read summaries of the latest advances alongside clear illustrations

In recent years capnography has gained a foothold in the medical field and is fast becoming a standard of care in anaesthesiology and critical care medicine. In addition, newer applications have emerged which have expanded the utility of capnographs in a number of medical disciplines. This new edition of the definitive text on capnography reviews every aspect of this valuable diagnostic technique. An introductory section summarises the basic physiology of carbon dioxide generation and transport in the body. A technical section describes how the instruments work, and a comprehensive clinical section reviews the use of capnography to diagnose a wide range of clinical disorders. Edited by the world experts in the technique, and with over 40 specialist contributors, Capnography, second edition, is the most comprehensive review available on the application of capnography in health care.

Audience: Critical Care Physicians, Pulmonary Medicine Physicians; Respiratory Care Practitioners; Intensive Care Nurses Author is the most recognized name in Critical Care Medicine Technical and clinical developments in mechanical ventilation have soared, and this new edition reflects these advances Written for clinicians, unlike other books on the subject which have primarily an educational focus
Now in full-colour, this eagerly-anticipated second edition continues to be the most comprehensive resource available on non-invasive ventilation (NIV), both in the hospital and at home. Reflecting a global perspective with expert contributors from more than 15 countries, the book: • provides clinical examples of NIV in practice with insightful vignettes • covers home- and intensive care-based ventilation • details NIV use in acute and chronic respiratory failure, plus paediatric and other specialty applications. Disease-specific sections provide best practice in the science, diagnostics and management of conditions such as COPD, cardiac failure, neuromuscular disease and obesity, while features such as ‘Common Clinical Questions & Answers’, abundant tables and illustrations, chapter summaries and new clinical vignettes showcase the realities of NIV in practice. This is essential reading for pulmonologists, critical care physicians and intensive care medicine specialists.

Mechanical ventilation is the life-support technique most frequently used in critically ill patients admitted to intensive care units. This Monograph discusses conventional and innovative ventilator modalities, adjuvant therapies, modes of extracorporeal respiratory support, and weaning from mechanical ventilation and noninvasive ventilation.

This book provides a concise yet comprehensive overview of pediatric acute respiratory distress syndrome (PARDS). The text reviews the emerging science behind the new PARDS definition; explores epidemiology, pathobiology, etiologies, and risk factors; reviews state-of-the-art treatment modalities and strategies; and discusses clinical outcomes. Written by experts in the field, Pediatric Acute Respiratory Distress Syndrome: A Clinical Guide is a valuable resource for clinicians and practitioners who specialize in pediatric critical care.

Guest editor Lena Napolitano has assembled and expert team of authors on the topic of Surgery in the ICU. Articles will focus on: Oxygen Support and Mechanical Ventilation Advances; Ventilator-associated Pneumonia – New Definitions; Optimal Strategies for Severe ARDS; Persistent Inflammation/Immunosuppression Syndrome; ABCDE Bundle in Critical Care; Renal Replacement Therapy in Acute Kidney Injury: Consensus?; Transfusion Advances in Critical Care; Severe Sepsis and Septic Shock: ProCESS; ARISE: PROMISE – What is Optimal Resuscitation?; Nutritional Support in Critical Care: What is the Evidence?; Acute Kidney Injury and Outcomes; and Tracheostomy Update: When and How?

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